

**State of Rhode Island**  
**Department of Environmental Management**  
**Office of Air Resources**  
**235 Promenade Street**  
**Providence, RI 02908-5767**  
**(401) 222 - 2808**



**Air Toxics Operating Permit Application**

**FORM ATOP-APP1**

# TABLE OF CONTENTS

FORM ATOP - APPL1

SECTION 1 -- GENERAL INFORMATION

SECTION 2 -- PROCESS INFORMATION

SECTION 3 -- POLLUTANT SPECIFIC INFORMATION

SECTION 4 -- AIR POLLUTION CONTROL DEVICES

SECTION 5 -- SITE MODELING DATA INFORMATION

SECTION 6 -- AIR POLLUTION CONTROL REGULATION No. 22, TABLE III

SECTION 7 -- GUIDANCE FOR COMPLETING AIR TOXICS OPERATING PERMIT APPLICATION



**State of Rhode Island & Providence Plantations**  
**Department of Environmental Management**  
**Office of Air Resources**  
**Air Toxics Operating Permits**

**AIR POLLUTION CONTROL PERMIT FEES**

Please complete this form, attach it to the check or money order, and submit it to the Office of Management Services. Payment must be made payable to **General Treasurer, State of Rhode Island**. The information requested below must be provided to coordinate the filing of your fee with your application. **This fee is a filing fee and therefore it must be paid before we can begin review of your application.**

APPLICANT'S NAME		FACILITY'S NAME:	
MAILING ADDRESS:		SITE ADDRESS:	
CITY:		CITY:	
STATE:	ZIP CODE:	COUNTY:	ZIP CODE:
TELEPHONE:		TELEPHONE:	
FAX:		FAX:	
Email:		Email:	

The Department's rules and regulations established pursuant to Chapters 23-23 and 42-17.2-2(z) of the General Laws of Rhode Island, require the payment of fees for air pollution permits. All application fees must be submitted to:

RI Department of Environmental Management  
Office of Management Services  
235 Promenade Street  
Providence, RI 02908-5767

THE APPLICATION FORM AND ANY ACCOMPANYING DOCUMENTS MUST BE SUBMITTED TO THE OFFICE OF AIR RESOURCES AT THE ADDRESS SHOWN ON THE APPLICATION FORM.

- ☐ TOXICS OPERATING APPLICATION--(\$809.00)  
☐ SECOND TIER TOXICS OPERATIONG PERMIT APPLICATION  
--(\$2,310.00)  
☐ ADJUSTMENTS TO SECOND TIER--(\$1,501.00)

**TOTAL FEE SUMITTED: \$** \_\_\_\_\_

**FOR OFFICIAL USE ONLY:**

Fee Amount Received: \$ \_\_\_\_\_

Date Received: \_\_\_\_\_

Received By: \_\_\_\_\_

For Deposit into Account No. 1752-80600

AUTHORIZED SIGNATURE

DATE

TYPED OR PRINTED NAME OF SIGNATORY

TITLE OF SIGNATORY

**FORM ATOP - FEE1**

Revised 3/04



## Section 1 - General Information

FACILITY NAME:			
MAILING ADDRESS:		SITE ADDRESS:	
CITY:		CITY:	
STATE:	ZIP CODE:	COUNTY:	ZIP CODE:
CONTACT PERSON:		TITLE:	
TELEPHONE:		FAX:	
Email:			
OWNER OF FACILITY:			
MAILING ADDRESS:			
CITY:		STATE:	ZIP CODE:
TELEPHONE:		TITLE:	
Email:		FAX:	
REGISTERED AGENT:			
EPA ID No.:			

I, the undersigned, hereby certify under penalty of law, that I am a responsible individual, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

\_\_\_\_\_  
AUTHORIZED SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
TYPED OR PRINTED NAME OF SIGNATORY

\_\_\_\_\_  
TITLE OF SIGNATORY



## Section 2 - Process Information

DESCRIPTION OF PROCESSES AND PRODUCTS:
SIC CODE(S):
Hours of Operation: _____ hours/day _____ days/week _____ weeks/year
<i>Plant Elevation Above Mean Sea Level:</i>
APC Regulation No. 22 listed substances emitted:
APPLICATION FOR (Check one): <div style="display: flex; justify-content: space-around;"><div><input type="checkbox"/> NEW PERMIT</div><div><input type="checkbox"/> RENEWAL</div></div> <div style="display: flex; justify-content: flex-end;"><div><input type="checkbox"/> PERMIT CHANGE</div></div>
PLEASE ENSURE YOU HAVE ENCLOSED THE AIR POLLUTION CONTROL PERMIT FEE <b>FORM ATOP - FEE1</b> WITH THE APPLICATION.

I, the undersigned, hereby certify under penalty of law, that I am a responsible individual, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

\_\_\_\_\_  
AUTHORIZED SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
TYPED OR PRINTED NAME OF SIGNATORY

\_\_\_\_\_  
TITLE OF SIGNATORY



### Section 3 - Pollutant Specific Information

Facility Name:	Approval No.(if applicable):
Emission Unit I.D. No.(s):	
<p>Fill out this form for each pollutant listed in Section 6, which is used or emitted at your facility. Note: if a substance is used on more than one emission unit; fill out this form for each substance on each emission unit and sum the results for each listed substance. Allot usage of substance among emission units.</p>	
<b>POLLUTANT INFORMATION:</b>	
Listed Air Toxic Substance:	
Amount (lbs.) used in last calendar year: _____ Amount (lbs.) emitted in last calendar year _____ Note: <b>The amount of substance used</b> for a given year is <b>beginning inventory plus amount purchased minus ending inventory</b> .	
Does the total amount of this chemical emitted from the facility exceed the minimum quantity in Table III of Section 6? <div style="display: flex; justify-content: space-around;"> <span><input type="checkbox"/> No (if No, complete the next two lines)</span> <span><input type="checkbox"/> Yes (if Yes, complete the entire application)</span> </div>	
Amount of chemical used and emitted in the preceding three calendar years: Year ____ Quantity used ____ Quantity emitted ____ <div style="text-align: right; margin-right: 100px;">           Year ____ Quantity used ____ Quantity emitted ____            Year ____ Quantity used ____ Quantity emitted ____         </div>	
NOTE: If emissions of this Listed Air Toxic Substance did not exceed the minimum quantity in the present year, but did exceed the minimum quantity in the previous years or is within 10% of the minimum quantity, do you project that emissions may exceed the minimum quantity in the future? <div style="text-align: right; margin-right: 100px;"> <input type="checkbox"/> No <span style="margin-left: 100px;"><input type="checkbox"/> Yes (if Yes, complete the entire application)</span> </div>	
<b>DESCRIPTION OF EMISSION UNIT EMITTING AIR TOXICS:</b>	
Stack I.D. No(s):	Stack Inside Diameter (m):
Stack Height above grade (m):	Stack Flow Rate (m/s):
Stack gas exit temperature (K):	
Stack Type: <input type="checkbox"/> Conventional vertical <input type="checkbox"/> Horizontal roof monitor <input type="checkbox"/> Wall vent <input type="checkbox"/> Fugitive (no stack)	
Frequency of Contaminant Emissions: <input type="checkbox"/> Continuous <input type="checkbox"/> Batch	
Periods that this emission unit emits contaminants: Total hours/week _____ Total weeks/year _____	

I, the undersigned, hereby certify under penalty of law, that I am a responsible individual, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

AUTHORIZED SIGNATURE

DATE

TYPED OR PRINTED NAME OF SIGNATORY

TITLE OF SIGNATORY



## Section 4 - Air Pollution Control Devices

Facility Name:	Approval No.(if applicable):
Air Pollution Control I.D. No.(s):	Stack I.D. No.(s):
List all Emission Unit I.D. No.(s) that are controlled by this unit:	
Control efficiency of the control device: _____%	
<p>Are Emission Units fully enclosed (<b>100% capture efficiency</b>)</p> <p style="text-align: center;"> <input type="checkbox"/> Yes             <span style="margin-left: 200px;"><input type="checkbox"/> No (if No, complete lines one and two)</span> </p> <p>1. Provide a value for capture efficiency: _____%</p> <p>2. Describe the procedure for determining capture efficiency: _____</p> <p>_____</p>	
<p>Provide and estimate of the facility's emissions of this pollutant to ambient air for the following time periods:</p> <p>Peak 1-hour emission rate: _____ lbs/hr.</p> <p>Peak 24-hours emission rate: _____ lbs/day</p> <p>Actual annual emission rate: _____ lbs/yr.</p> <p>NOTE: provide copies of equations and source of data inputs used to make these calculations. See Section 6 for sample formulas</p>	

I, the undersigned, hereby certify under penalty of law, that I am a responsible individual, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

\_\_\_\_\_  
AUTHORIZED SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
TYPED OR PRINTED NAME OF SIGNATORY

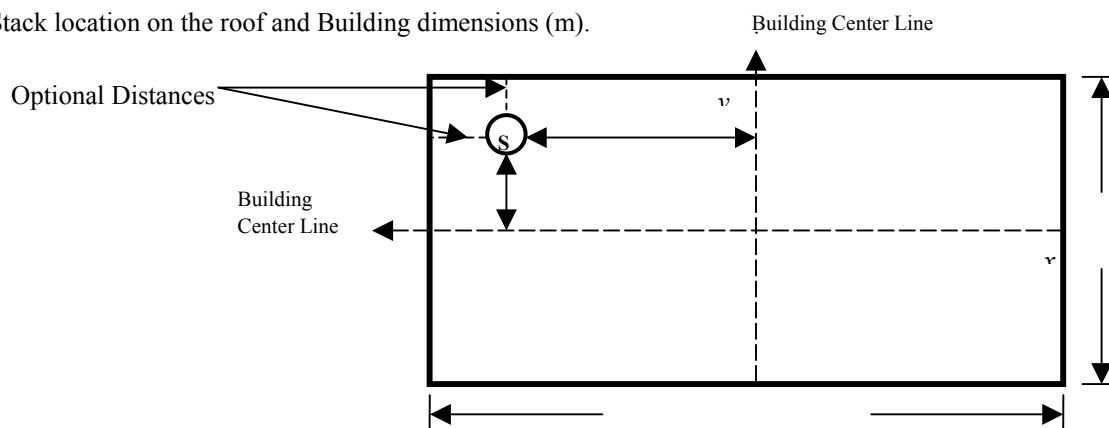
\_\_\_\_\_  
TITLE OF SIGNATORY



## Section 5 - Site Modeling Data Information

Facility Name:	Building Name:
Stack I.D. No.(s):	Emission Unit I.D. No.(s):

Stack location on the roof and Building dimensions (m).



### GENERAL FACILITY INFORMATION

#### ATTACH THE FOLLOWING:

1. A site plan of the facility showing all stack, building dimensions, and base elevations.
2. An area map that provides dimensions for all buildings within 300 feet of the stack (s), and emission points of the Listed Air Pollutants in TABLE III, Section 6. Include height, width, and length for these structures.
3. This information **must** be included with the application in order to process the permit.

THE INFORMATION DETAILED ABOVE **MUST** BE INCLUDED IN ORDER TO PROCESS THE PERMIT APPLICATION.

I, the undersigned, hereby certify under penalty of law, that I am a responsible individual, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

AUTHORIZED SIGNATURE

DATE

TYPED OR PRINTED NAME OF SIGNATORY

TITLE OF SIGNATORY





## Section 6 - Air Pollution Control Regulation No. 22

### TABLE III

TABLE III MINIMUM QUANTITIES (MQ) IN POUND PER YEAR (lbs/yr.)				
Substance	CAS Number	Minimum Quantity	Amount Emitted	Is amount Emitted ≥MQ?
Acetaldehyde	75070	50		
Acetamide	60355	5		
Acetone	67641	20,000		
Acetonitrile	75058	200		
Acetophenone	98862	900		
2-Acetylaminofluorene	53963	0.09		
Acrolein	107028	0.04		
Acrylamide	79061	0.09		
Acrylic acid	79107	3		
Acrylonitrile	107131	1		
Aldrin	309002	0.002		
Allyl chloride	107051	3		
2-Aminoanthraquinone	117793	10		
4-Aminobiphenyl	92671	0.02		
Ammonia	7664417	400		
Aniline	62533	3		
o-Anisidine	90040	2		
Antimony & compounds <sup>a</sup> , including antimony trioxide	7440360	0.6		
Aramite	140578	10		
Arsenic & compounds <sup>a</sup> (inorganic)	7440382	0.02		
Arsine	7784421	0.2		
Asbestos	1332214	400 <sup>b</sup>		
Azobenzene	103333	3		
Barium	7440393	600		
Benzene	71432	10		
Benzidine	92875	0.002		
Benzoic acid	65850	30,000		
Benzotrichloride	98077	0.03		
Benzyl chloride	100447	2		
Beryllium & compounds <sup>a</sup>	7440417	0.04		
Biphenyl	92524	600		
Bis (chloromethyl) ether	542881	0.002		
Bis (2-ethylhexyl) phthalate (DEHP)	117817	40		
Boron and borates	7440428	90		

**TABLE III**  
**MINIMUM QUANTITIES (MQ) IN POUND PER YEAR (lbs/yr.)**

<b>Substance</b>	<b>CAS Number</b>	<b>Minimum Quantity</b>	<b>Amount Emitted</b>	<b>Is amount Emitted ≥MQ?</b>
Bromates (including Potassium bromate)	15541454	0.8		
Bromine and compounds (except Hydrogen bromide & Bromates)	7726956	200		
Bromodichloromethane	75274	3		
Bromoform	75252	100		
1,3-Butadiene	106990	3		
Butyl benzyl phthalate	85687	2,000		
Cadmium & compounds <sup>a</sup>	7440439	0.07		
Calcium cyanamide	156627	100		
Captan	133062	100		
Carbaryl	63252	900		
Carbon disulfide	75150	2,000		
Carbon tetrachloride	56235	8		
Carbonyl sulfide	463581	70		
Catechol	120809	500		
Chloramben	133904	200		
Chlordane	57749	0.1		
Chlorinated paraffins (avg length C12- C13, 60% chlorine)	108171262	4		
Chlorine	7782505	20		
Chlorine dioxide	10049044	20		
Chloroacetic acid	79118	0.002		
2-Chloroacetophenone	532274	0.09		
4-Chloroaniline	106478	30		
Chlorobenzene	108907	20,000		
Chlorobenzilate	510156	80		
1-Chloro-1,1-difluoroethane (CFC 142B)	75683	36,500		
Chlorodifluoromethane (HCFC-22)	75456	36,500		
Chloroform	67663	20		
Chloromethyl methyl ether	107302	0.1		
2-Chlorophenol	95578	60		
4-Chloro-o-phenylenediamine	95830	20		
Chloropicrin	76062	10		
Chloroprene	126998	100		
p-chloro-o-toluidine	95692	1		
Chromium III & compounds <sup>a</sup> , insoluble salts	16065831	20,000		
Chromium VI & compounds <sup>a</sup>	18540299	0.009		
Cobalt & compounds <sup>a</sup>	7440484	1		
Coke oven emissions	8007452	0.2		
Copper & compounds <sup>a</sup> , except Copper cyanide	7440508	40		
p-Cresidine	120718	2		
Cresols/Cresylic acid isomers and mixtures (Methylphenols)	1319773	20,000		

**TABLE III**  
**MINIMUM QUANTITIES (MQ) IN POUND PER YEAR (lbs/yr.)**

<b>Substance</b>	<b>CAS Number</b>	<b>Minimum Quantity</b>	<b>Amount Emitted</b>	<b>Is amount Emitted ≥MQ?</b>
Cumene	98828	1,000		
Cupferron	135206	2		
Cyanide & compounds (inorganic) <sup>i</sup> , except Hydrogen cyanide	57125	100		
Cyclohexane	110827	20,000		
2,4-Diaminoanisole	615054	20		
2,4-Diaminotoluene	95807	0.1		
Diazomethane	334883	90		
Dibromochloromethane	124481	40		
1,2-Dibromo-3-chloropropane	96128	0.05		
Dibutylphthalate	84742	700		
1,2-Dichlorobenzene	95501	900		
1,4-Dichlorobenzene (p-Dichlorobenzene)	106467	10		
3,3'-Dichlorobenzidene	91941	0.3		
Dichloro diphenyl dichloroethylene (DDE)	3547044	1		
cis- 1,2-Dichloroethene	156592	1,000		
trans- 1,2-Dichloroethene	156605	200		
Dichloroethyl ether (Bis (chloroethyl) ether)	111444	0.3		
2,4-Dichlorophenoxyacetic acid, salts & esters (2,4-D)	94757	90		
1,3-Dichloropropene	542756	20		
Dichlorvos	62737	1		
Dieldrin	60571	0.02		
Diethanolamine	111422	300		
Diethyl sulfate	64675	0.3		
1,1-Difluoroethane (HCFC 152a)	75376	36,500		
3,3'-Dimethoxybenzidine	119904	0.05		
p-Dimethyl aminoazobenzene	60177	0.09		
n,n-Dimethyl aniline	121697	20		
3,3'-Dimethyl benzidine	119937	0.002		
Dimethyl carbamoyl chloride	79447	0.03		
Dimethyl formamide	68122	3,000		
1,1-Dimethyl hyrazine	57147	0.1		
1,2-Dimethyl hyrazine	540738	0.0007		
2,4-Dimethylphenol	105679	200		
Dimethyl phthalate	131113	1,000		
Dimethyl sulfate	77781	0.02		
4,6-Dinitro-o-cresol	534521	4		
2,4-Dinitrophenol	51285	10		
2,4-Dinitrotoluene	121142	1		
1,4-Dioxane (1,4-Diethyleneoxide)	123911	10		
1,2-Diphenylhydrazine (Hydrazobenzene)	122667	0.5		

**TABLE III**  
**MINIMUM QUANTITIES (MQ) IN POUND PER YEAR (lbs/yr.)**

<b>Substance</b>	<b>CAS Number</b>	<b>Minimum Quantity</b>	<b>Amount Emitted</b>	<b>Is amount Emitted ≥MQ?</b>
Epichlorohydrin	106898	90		
1,2-Epoxybutane	106887	200		
Ethyl acrylate	140885	50		
Ethyl benzene	100414	3,000		
Ethyl carbamate (Urethane)	51796	0.3		
Ethyl chloride (Chloroethane)	75003	10,000		
Ethylene dibromide (Dibromoethane)	106934	0.5		
Ethylene dichloride (1,2-Dichloroethane)	107062	4		
Ethylene glycol	107211	400		
Ethylene glycol monobutyl ether	111762	4,000		
Ethylene glycol monoethyl ether	110805	100		
Ethylene glycol monoethyl ether acetate	111159	40		
Ethylene glycol monomethyl ether	109864	30		
Ethylene glycol monomethyl ether acetate	110496	10,000		
Ethylene imine (Aziridine)	151564	0.005		
Ethylene oxide	75218	1		
Ethylene thiourea	96457	9		
Ethylidene dichloride (1,1-Dichloroethane)	75343	70		
Fluorides & compounds, including Hydrogen fluoride		7		
Formaldehyde	50000	9		
Glutaraldehyde	111308	9		
Heptachlor	76448	0.009		
Hexachlorobenzene	118741	0.02		
Hexachlorobutadiene	87683	2		
Hexachlorocyclohexanes, technical grade & mixed isomers	608731	0.2		
alpha-Hexachlorocyclohexane	319846	0.07		
beta-Hexachlorocyclohexane	319857	0.2		
gamma-Hexachlorocyclohexane (Lindane)	58899	0.1		
Hexachlorocyclopentadiene	77474	20		
Hexachloroethane	67721	30		
Hexamethylene-1,6-diisocyanate	822060	0.6		
Hexamethylphosphoramide	680319	0.005		
Hexane	110543	20,000		
Hydrazine	302012	0.02		
Hydrochloric acid (Hydrogen chloride)	7647010	700		
Hydrogen bromide	10035106	2,000		
Hydrogen cyanide	74908	100		
Hydrogen sulfide	7783064	10		
Hydroquinone	123319	500		
Isophorone	78591	2,000		

**TABLE III**  
**MINIMUM QUANTITIES (MQ) IN POUND PER YEAR (lbs/yr.)**

<b>Substance</b>	<b>CAS Number</b>	<b>Minimum Quantity</b>	<b>Amount Emitted</b>	<b>Is amount Emitted ≥MQ?</b>
Isopropanol	67630	1,000		
Lead & compounds <sup>a</sup> , inorganic	7439921	0.9		
Lead - tetraethyl lead	78002	9.E- 04		
Maleic anhydride	108316	4		
Manganese & compounds <sup>a</sup>	7439965	0.2		
Mercury & cmpds <sup>a</sup> – elemental & inorganic	7439976	0.7		
Mercury – Methyl mercury	22967926	0.3		
Methanol	67561	10,000		
Methoxychlor	72435	60		
Methyl bromide (Bromomethane)	74839	70		
Methyl chloride (Chloromethane)	74873	400		
Methyl chloroform (1,1,1-Trichloroethane)	71556	4,000		
4,4-Methylene bis (2-chloroaniline)	101144	0.2		
Methylene chloride (Dichloromethane)	75092	200		
4,4-Methylenedianiline	101779	0.2		
Methylene diphenyl diisocyanate	101688	70		
Methyl ethyl ketone (2-Butanone)	78933	4,000		
Methyl hydrazine	60344	0.04		
Methyl iodide (Iodomethane)	74884	1,000		
Methyl isobutyl ketone (Hexanone)	108101	9,000		
Methyl isocyanate	624839	100		
Methyl methacrylate	80626	2,000		
Methyl tert butyl ether (MTBE)	1634044	3,000		
Michler's ketone (4,4'-Bis (dimethylamino) benzophenone)	90948	0.4		
Fine mineral fibers <sup>c</sup>		2,000		
Molybdenum and compounds <sup>a</sup>	7439987	60		
Naphthalene	91203	30		
Nickel and compounds <sup>a</sup> , except Nickel subsulfide	7440020	0.4		
Nickel subsulfide	12035722	0.2		
Nitric acid	7697372	30		
Nitrobenzene	98953	200		
4-Nitrobiphenyl	92933	0.002		
4-Nitrophenol	100027	10		
2-Nitropropane	79469	10		
N-Nitrosodi-n-butylamine	924163	0.07		
N-Nitrosodiethylamine	55185	0.002		
N-Nitrosodimethylamine	62759	0.008		
N-Nitrosodiphenylamine	86306	40		
N-Nitrosdi-n-propylamine	621647	0.05		
N-Nitroso-n-methylethylamine	10595956	0.02		

**TABLE III**  
**MINIMUM QUANTITIES (MQ) IN POUND PER YEAR (lbs/yr.)**

<b>Substance</b>	<b>CAS Number</b>	<b>Minimum Quantity</b>	<b>Amount Emitted</b>	<b>Is amount Emitted ≥MQ?</b>
N-Nitroso-n-methylurea	684935	0.003		
N-Nitrosomorpholine	59892	0.05		
N-Nitrosopiperidine	100754	0.04		
N-Nitrosopyrrolidine	930552	0.2		
Parathion	56382	20		
Pentachloronitrobenzene (Quintozone)	82688	30		
Pentachlorophenol	87865	7		
Phenol	108952	2,000		
p-Phenylenediamine	106503	20		
Phosgene	75445	1		
Phosphine	7803512	30		
Phosphoric acid	7664382	800		
Phosphorus, white	7723140	0.2		
Phthalic anhydride	85449	2,000		
Polychlorinated biphenyls (PCBs), except Aroclor 1254	1336363	0.1		
PCBs- Aroclor 1254	11097691	0.2		
Polychlorinated dibenzo dioxins (PCDDs), polychlorinated dibenzo furans (PCDFs) and dioxin-like polychlorinated biphenyls (PCBs)		$3 \times 10^{-7d}$		
Polycyclic Organic Matter		0.01 <sup>e</sup>		
1,3-Propane sultone	1120714	0.1		
beta-Propiolactone	57578	0.02		
Propionaldehyde	123386	10,000		
Propoxur (Baygon)	114261	10		
Propylene	115071	36,500		
Propylene dichloride (1,2-Dichloropropane)	78875	10		
Propylene glycol monomethyl ether (PGME)	107982	36,500		
Propylene oxide	75569	30		
1,2-Propylenimine (2-Methyl aziridine)	75558	0.01		
Quinoline	91225	0.1		
Quinone	106514	100		
Selenium & compounds <sup>a</sup> except Hydrogen selenide and Selenium sulfide	7782492	2,000		
Selenium – Hydrogen selenide	7783075	2		
Selenium sulfide	7446346	20		
Sodium hydroxide	1310932	3		
Styrene	100425	3,000		
Styrene oxide	96093	2		
Sulfates <sup>f</sup>		40		
Sulfuric acid and Oleum <sup>g</sup>		40		
1,1,1,2-Tetrachloroethane	630206	300		

**TABLE III**  
**MINIMUM QUANTITIES (MQ) IN POUND PER YEAR (lbs/yr.)**

<b>Substance</b>	<b>CAS Number</b>	<b>Minimum Quantity</b>	<b>Amount Emitted</b>	<b>Is amount Emitted ≥MQ?</b>
1,1,2,2-Tetrachloroethane	79345	9,000		
Tetrachloroethylene (Perchloroethylene)	127184	20		
Tetrachlorophenols	25167833	10,000		
1,1,1,2-Tetrafluoroethane	811972	36,500		
Thioacetamide	62555	0.07		
Titanium tetrachloride	7550450	10		
Toluene	108883	1,000		
2,4-Toluene diamine (2,4-Diaminotoluene)	95807	0.1		
2,4-and 2,6-Toluene diisocyanate <sup>h</sup>	26471625	8		
o-Toluidine	95534	2		
Toxaphene (Chlorinated camphene)	8001352	0.03		
1,2,4-Trichlorobenzene	120821	90		
1,1,2-Trichloroethane	79005	30		
Trichloroethylene	79016	50		
Trichlorofluoromethane	75694	3,000		
2,4,5-Trichlorophenol	95954	900		
2,4,6-Trichlorophenol	88062	30		
Triethylamine	121448	800		
Trifluralin	1582098	90		
2,2,4-Trimethylpentane	540841	20,000		
Vanadium and compounds <sup>a</sup>	7440622	0.07		
Vinyl acetate	108054	600		
Vinyl bromide	593602	0.5		
Vinyl chloride	75014	20		
Vinylidene chloride (1,1-Dichloroethylene)	75354	600		
Xylenes, isomers and mixtures	1330207	1,000		
Zinc and compounds <sup>a</sup>	7440666	3,000		

<sup>a</sup>For metal compounds, Minimum Quantities apply to the metal portion of the compound.

<sup>b</sup>Asbestos units are fibers/year.

<sup>c</sup>Fine mineral fibers are mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers or other mineral derived fibers of average diameter 1 micrometer (µm) or less.

<sup>d</sup>PCDD AAL is in terms of 2,3,7,8-tetrachlorodibenzodioxin equivalents, calculated as specified in the Rhode Island Air Toxics Guideline.

<sup>e</sup>Polycyclic Organic Matter AAL is in terms of benzo(a)pyrene equivalents, calculated as specified in the Rhode Island Air Toxics Guideline.

<sup>f</sup>Sulfates AALs apply to ammonium bisulfate [(NH<sub>4</sub>)HSO<sub>4</sub>, CAS 7803-63-6], ammonium sulfate [(NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, CAS 7783-20-2], ferric sulfate [Fe(SO<sub>4</sub>)<sub>3</sub>, CAS 10028-22-5] and sodium sulfate [Na<sub>2</sub>SO<sub>4</sub>, CAS 7757-82-6]

<sup>g</sup>Sulfuric acid and oleum AALs apply to sulfuric acid (H<sub>2</sub>SO<sub>4</sub>, CAS 7664-03-9), sulfur trioxide (SO<sub>3</sub>, CAS 7446-71-9) and oleum (H<sub>2</sub>SO<sub>4</sub> + SO<sub>3</sub>, CAS 8014-95-7)

<sup>h</sup>Includes 2,4-TDI (CAS 584849), 2,6-TDI (CAS 91087) and 2,4/2,6 mixtures (CAS 26471625)



## Section 7 - Guidance For Completing Air Toxics Operating Permit Application

Please feel free to contact the Office of Air Resources (222-2808) if you have any questions or otherwise need assistance. A source may elect to substitute its own spreadsheet or modify these forms as long as all essential information is included.

### Section 1. General Information

Most of this information is self-explanatory. **Facility Name** should be company or organization's actual legal name. **Location** is address of emission unit(s) of concern. If mailing address of facility contact(s) is different; please indicate that and attach additional sheets if necessary.

**Facility contacts** should be both a **Technical Contact** able to answer technical questions during the review of the application and the **Official Responsible for Compliance**, who is the point of contact for legal or administrative issues. This may be the same person, if so indicate by writing "Same."

This application package contains an optional Table III (from Air Pollution Control Reg. No. 22) check off which may be helpful to facilities using multiple listed substances. To use, check off any of the forty listed substances used by your facility; then determine any that are used above the minimum quantity (MQ) in Table III for that chemical. For each chemical used above the MQ; pollutant specific information must be submitted.

### Section 3. Pollutant Specific Information

This section is designed to utilize information you have already submitted on Air Pollution Inventory FORM J. The purpose of Section 1 is to identify the chemical, verify whether its use exceeds the minimum quantity (MQ) threshold in APC Regulation No. 22 and establish the general usage trend for the last few years. If a substance is used within 10% of the threshold amount, it is important to project whether your company may exceed this amount for review so that the permit issued will not be overly restrictive and impact of operations.

If an emission control device or system is employed; identify it by ID No., type, permit number, and efficiency. Air pollution control devices have been required to have a permit since **1971**. If device was installed before 1971, indicate the year. **Control efficiency (%)** is preferably obtained from emission testing but may be estimated using standard HVAC calculations. You should identify where your value for control efficiency was obtained.

The complexity of determining emission rates is directly related to the complexity of your facility's process and control systems. The simplest calculation of actual annual emission is amount used minus amount retained in product (if any) **multiplied by (1 - capture efficiency) multiplied by (1 - control efficiency)**. If either capture efficiency or control efficiency is unknown use 1.0. If your facility employs multiple process lines with different control systems or emission points; you should calculate emissions for each process line and sum the results.

If process is continuous or regular, peak 1 hour equals actual annual emission divided by 8760 and Peak 24 hour equals peak 1 hour multiplied by 24. If process variables are such that emissions are not distributed evenly over the course of days or hours, you will have to devise a customized equation. Examples of nonstandard distribution might include: products manufactured only during a particular season or on a particular shift, products with different rates of pollutant retention or process lines that cannot be operated simultaneously due to structural or personnel reasons.

**Include copies of your equations and the source of any data input values.**